

Gencore version 4.5
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OM protein - protein search, using sw model

Run on: July 18, 2001, 15:53:41 ; Search time 22.87 Seconds

(without alignments)
2025.218 Million cell updates/sec

Title: US-09-587-111-5
Perfect score: 4004
Sequence: 1 MTSPPSSPVFRLIEDLGGOE..... EDEDGASEENYVPVQQLQSN 764

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 412676 seqs, 60623988 residues

Total number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_0601:*

1: /SIDS8/gcadata/geneseq/geneseq/AA1980.DAT:*

2: /SIDS8/gcadata/geneseq/geneseq/AA1981.DAT:*

3: /SIDS8/gcadata/geneseq/geneseq/AA1982.DAT:*

4: /SIDS8/gcadata/geneseq/geneseq/AA1983.DAT:*

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21: /SIDS8/gcadata/geneseq/geneseq/AA2000.DAT:*

22: /SIDS8/gcggatc/geneseq/AA2001.DAT:*

Pred. No. 1 is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

RESULT 1
ID AAY29469 standard; Protein: 764 AA.

XX AAY29469;

XX 08-OCT-1999 (first entry)

XX Human vanilloid receptor homologue VANILREP2.

XX Human; vanilloid receptor homologue; VANILREP2; polymorphic variant; PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative; rheumatoid arthritis; neuralgia; algesia; nerve injury; ischaemia; neurodegeneration; stroke; incontinence; inflammatory disorder.

XX OS Homo sapiens.

XX PN W09337765-A1.

XX PD 29-JUL-1999.

XX PF 25-JAN-1999; 99M0-EP00420.

XX PR 20-JAN-1999; 99GB-0001209.

XX PR 27-JAN-1998; 98BP-0300549.

XX PR 26-OCT-1998; 98GB-0023421.

XX PA (SMIK) SMITHKLINE BEECHAM PLC.

XX PI Davis JB, Duckworth DM, Hayes PD;

XX DR WPT; 1999-479049/40.

XX DR NP-SDB; AAZ07114.

XX

12	3036.5	75.8	7.27	20	AAW99798	Human VRP-1 (VR2)
13	2240	55.9	4.36	21	AAV97359	Human VR-2 (altern
14	2230	55.7	5.54	21	AAV97360	Rat partial VR-2 p
15	1689	42.2	8.43	20	AAV06561	Chicken capsaicin
16	1689	42.2	8.43	20	AAW99799	Chicken VR1 capsai
17	1652	41.3	8.38	20	AAW06555	Rat VR1 capsicin
18	1652	41.3	8.38	20	AAW99789	Human VR-1 protein
19	1651.5	41.2	8.39	21	AAV97357	Human vanilloid re
20	1648.5	41.2	8.39	21	AAV96478	A human vanilloid
21	1644.5	41.1	8.39	20	AAV01555	Human secreted pro
22	1644.5	41.1	8.39	20	AAV9470	Human vanilloid re
23	1644.5	41.1	8.39	21	AAB2127	Human vanilloid re
24	1640.5	41.0	8.39	20	AAV0152	A human vanilloid
25	1638.5	40.9	8.39	20	AAB3153	A partial human va
26	1455	36.3	963	21	AAV96479	Human vanilloid re
27	1440	36.0	279	19	AAW74908	Human calcium ion
28	956.5	23.9	217	20	AAW99793	Human secreted pro
29	637	15.9	725	22	AAB0412	Rat VR1 capsaicin
30	635	15.9	732	22	AAU0413	Human calcium ion
31	634	15.8	725	22	AAB31595	Amino acid sequenc
32	607.5	15.2	727	22	AAU0414	Human calcium ion
33	482.5	12.1	451	22	AAU0414	Human T11251 amino
34	274	6.8	57	20	AAW99793	Human secreted pro
35	272	6.8	232	19	AAW99792	Rat VR1 capsaicin
36	247	6.2	71	20	AAW99792	Human transintest re
37	224.5	5.6	974	19	AAW5960	Prostate-tumour re
38	144.5	3.6	1095	20	AAV0931	Human sodium chann
39	144.5	3.6	1104	21	AAV95437	Black widow spider
40	140.5	3.5	1214	22	AAB20121	D. immitis ankyrin
41	140	3.5	1214	16	AAB80197	Full length ankyrin
42	138.5	3.5	352	21	AAB11616	D. immitis ankyrin
43	138.5	3.5	1745	19	AAW70608	D. immitis ankyrin
44	138.5	3.5	1745	19	AAW6776	D. immitis ankyrin
45	138.5	3.5	1745	21	AAB11589	D. immitis ankyrin

ALIGNMENTS

Result No.	Score	Query	Match Length	DB ID	Description
1	4004	100.0	764	20	AAV29469 Human vanilloid re
2	4004	100.0	764	20	AAV06559 Human vanilloid re
3	4004	100.0	764	21	AAV97358 Human VR-2 protein
4	4004	100.0	764	22	AAE35622 Human vanilloid re
5	3988.5	99.6	763	20	AAV42308 Human vanilloid re
6	3988.5	99.6	763	20	AAV29471 Human vanilloid re
7	3939	98.4	764	21	AAV84834 Amino acid sequenc
8	3258	81.4	630	21	AAV97364 Human VR-2 (altern
9	3051.5	76.2	761	20	AAV99790 Rat vanilloid rece
10	3051.5	76.2	761	20	AAV99790 Rat VRP-1 (VR2) c
11	3036.5	75.8	727	20	AAV06560 Human vanilloid re

PT New human vanilloid receptor homologues (VANIREP2)

XX

PS Claim 4; Page 30-32; 47pp; English.

XX

The present sequence represents a human vanilloid receptor homologue, designated VANIREP2. VANIREP2 can be used to diagnose disease or susceptibility to disease related to expression or activity of VANIREP2 polypeptides. VANIREP2 may be used to treat diseases including pain, (for example chronic, neuropathic, postoperative, rheumatoid arthritis), neuralgia, algesia, nerve injury, ischaemia, neurodegeneration, stroke, incontinence, and inflammatory disorders.

SO Sequence 764 AA;

OS

Query Match 100.0%; Score 4004; DB 20; Length 764; Best Local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps 0;

XX

Db 1 mtspsspvfrletidggqgedgseadrkgkifgsjppmesqfqgedrkfapqivlny 60

QY 1 MTSPPSSPVFRLETIDGGQEDGSEADRKGKIFGSGJPPMESQFOGEDRKFAPOIRVNLN 60

XX

Db 61 RKGIGASQPDNRFRDRFLAVSRYGVPEDLAGLPIPEYLSKTSKYLTDSETEGSGKTCI 120

QY 61 RKGIGASQPDNRFRDRFLAVSRYGVPEDLAGLPIPEYLSKTSKYLTDSETEGSGKTCI 120

XX

Db 61 rkgtgasqpdprfrdrflavsvsgpedagpeylskyttdseytegstgkctc 120

QY 61 rkgtgasqpdprfrdrflavsvsgpedagpeylskyttdseytegstgkctc 120

XX

Db 121 MKAVALNLIKDGWNACTPLIQLQIDRDSGNPQLVNAQCTDDYRGHSAHLTAIEKRSQCVK 180

QY 121 MKAVALNLIKDGWNACTPLIQLQIDRDSGNPQLVNAQCTDDYRGHSAHLTAIEKRSQCVK 180

XX

Db 121 mkaavnlkdgynacplqlqidrdsgnpqlvnaqctddyrgnhsalhalekrsqcvk 180

QY 121 mkaavnlkdgynacplqlqidrdsgnpqlvnaqctddyrgnhsalhalekrsqcvk 180

XX

Db 181 LIVENGANYNHARACRREFQKQGTCPYFGELPLSAACTKWDVSYLLENPHQASLQA 240

QY 181 LIVENGANYNHARACRREFQKQGTCPYFGELPLSAACTKWDVSYLLENPHQASLQA 240

XX

Db 301 AAKEGKTEIFRHLQREFGFLSHLRKFTEMCYGVWVRSYLDASVDSCRENSVNBIAF 360

QY 301 AAKEGKTEIFRHLQREFGFLSHLRKFTEMCYGVWVRSYLDASVDSCRENSVNBIAF 360

XX

Db 301 aakegktelefhilrefsgfshlkftcavcygvrsyldasvdsceensvleiaf 360

QY 301 aakegktelefhilrefsgfshlkftcavcygvrsyldasvdsceensvleiaf 360

XX

Db 361 HCKSPHRHRMVTLEPLNKLQAKWNLKPLKFLNLTNLNMFITAVAYHQPTIKQOA 420

QY 361 HCKSPHRHRMVTLEPLNKLQAKWNLKPLKFLNLTNLNMFITAVAYHQPTIKQOA 420

XX

Db 421 PHLKAEVGNMSMLTSHILLIGGILVQWLYFWRHRHFWIWTISDSVYBILFQALL 480

QY 421 PHLKAEVGNMSMLTSHILLIGGILVQWLYFWRHRHFWIWTISDSVYBILFQALL 480

XX

Db 421 phlkavgnsmlltshilliggyilvsglyfwrrhfwifistdysfeilffqall 480

QY 421 phlkavgnsmlltshilliggyilvsglyfwrrhfwifistdysfeilffqall 480

XX

Db 481 TVWSQVLCFLAIEWULPLVLSALVGNWLNLKTYREFQHGIYSMOKVILDRFLFLL 540

QY 481 TVWSQVLCFLAIEWULPLVLSALVGNWLNLKTYREFQHGIYSMOKVILDRFLFLL 540

XX

Db 541 IYLVLFEGFAYALVSIQEAWRPEPTGPNTATEYQPMEGQEDENGAGAQYRGTLIASLEL 600

QY 541 IYLVLFEGFAYALVSIQEAWRPEPTGPNTATEYQPMEGQEDENGAGAQYRGTLIASLEL 600

XX

Db 601 FKFTGMGELAFQDRHFRGMVLLLAVALTYLLNNLIAIMSETVSVATSWSW 660

QY 601 FKFTGMGELAFQDRHFRGMVLLLAVALTYLLNNLIAIMSETVSVATSWSW 660

Db 601 fkftgmgelafqdrhfrgmvlllavaltyllnnliaimsetvsvatsws 660

QY 601 fkftgmgelafqdrhfrgmvlllavaltyllnnliaimsetvsvatsws 660

Db 661 KLOKAIISLEMENGWCRKQKRAQSYMLTWGTPCSPDERWCFFVEEVWASWQTLPT 720

QY 661 KLOKAIISLEMENGWCRKQKRAQSYMLTWGTPCSPDERWCFFVEEVWASWQTLPT 720

Db 661 klokaivslemengwcrkqkraqsymltwgtpcspderwcffveevwaswqtlpt 720

QY 661 klokaivslemengwcrkqkraqsymltwgtpcspderwcffveevwaswqtlpt 720

XX

Db 721 LCEDDSGAGVPTLENVPLASPPKEDEDGASEENYVPOVQLQSN 764

QY 721 LCEDDSGAGVPTLENVPLASPPKEDEDGASEENYVPOVQLQSN 764

Db 721 lcedpsgagvptlenvplasppkdededgaseenyvpoqlqsn 764

QY 721 lcedpsgagvptlenvplasppkdededgaseenyvpoqlqsn 764

XX

Db 121 MKAVALNLIKDGWNACTPLIQLQIDRDSGNPQLVNAQCTDDYRGHSAHLTAIEKRSQCVK 180

QY 121 MKAVALNLIKDGWNACTPLIQLQIDRDSGNPQLVNAQCTDDYRGHSAHLTAIEKRSQCVK 180

XX

Db 121 mkaavnlkdgynacplqlqidrdsgnpqlvnaqctddyrgnhsalhalekrsqcvk 180

QY 121 mkaavnlkdgynacplqlqidrdsgnpqlvnaqctddyrgnhsalhalekrsqcvk 180

RESULT 2

QY 1 MTSPPSSPVRLERLTDGGQEDGESEADRKGKLDGSGPPMSEOFQEDRKAPQIRVNLN 60
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PR 08-DEC-1998; 98GB-0027016.
 Db 1 mtsppsspvrflietldggqdgseadrkgkldfgslppmesqfqedrkfapqirvnlx 60
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PA (MERI) MERCK SHARP & DOHME LTD.
 QY 61 RKGIGASQDPNRFDRLNAVRSGVPEGLAGLPELSKTSKYLTDESETEGSGKTCI 120
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PI Bonnett TP;
 Db 61 rkgigasqdpnrfdrdriflfnasrgvpedaglpeylsktskyltdeseytegsgkcl 120
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PR
 QY 121 MKAVALNLDGYNACTPLQDSDNPQPLVNAQCTDDYXRGRGSHALHIAEKRSQCVK 180
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| DR N-PSDB; AAC60297.
 Db 121 mkavalnldgynacipilqlqdrdsqgnqplvnacqddyyrghsalhiaekrslqcvk 180
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PR
 QY 181 LIVENGANVHARACGRGRFFQGCTPYGELPLSLACTKWDVSYLLENPHOPASLQA 240
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PS
 Db 181 livenganvharacgrgrffqgctfygelpslaactkwdvsvylenphopaslx 240
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| XX
 QY 241 TDSQGVNLHALVMDSNSAENTALYTSMDGLQAGARLCPTVQLEDIRNLQDTPKL 300
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 241 tdsqgvnvlhalvmsnsaenialvtsgdglqagariqctvqledirnlqdtpkl 300
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 301 AAKEGKIEIRHILREFSGLSHSRKFTWCYGVRSYLDLASVDSCEENSYLIAF 360
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 301 aakegkiefihilrefsglsksrkftewcygvrsyldlasvdsceensvleiaf 360
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 361 HCKSPHRHRMVTLEPLNKLQAKWDLIPREFLNLQMFITAVAHQPTKQAA 420
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 361 hcksphrhrmvleplnkliqakwdlilipreflnqmfittavahqptkkqa 420
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| XX
 QY 421 PHLKAEVGNMSMLTGHTLILGIGVILQGOLWYFRRHVFISFTDSYBILFQALL 480
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PS
 Db 421 phlkaevgnsmltghtlilgigvilylgqwlwyrhvfisftdsybilfqlall 480
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| XX
 QY 481 TWSQVLCFIAEWTPLVPLYSALVIGWLNLKLYTROFQHGIYSMIOKYLDRFL 540
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 481 tvwsqvlcfiaewtplvplysalvlgwllytqfqhgiysmiokylrdfl 540
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 541 IYLVLFEGFAVALVLSQEARPEAPEGPNATESQPMEGQEDGNGAQRGILRASL 600
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 541 iylvlfegfaavalvlsqearpeaptgnatesqpmeggedeengayrgileaslel 600
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 601 FKFTIGMELAFOEQLHFRGAVLILLLAYVLTILLNLMLTALMSETVSVATWSWI 660
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 601 fkftigmelafqeqlhfrgavllayvltillnlmltalmsetvsvatwsliw 660
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 661 KIQKATSVLEMENGWWRCKRKORASQMLTVGTPGSPDRWCRFREVENVASWQTLPT 720
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 661 kikqaisvlmenywwcrkqragymlytqkpgspderwcfcfrevewwaswqtlpt 720
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 721 LCEDPSGAGVPTLMPVLSPPKEPEDGASEEENWVWQVQLQSN 764
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 721 lcedspsgagvptlmpvlsppkededgaseenwyvpgqlqn 764
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 RESULT 4
 ID AAB35622 standard; Protein: 764 AA.
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PR 08-DEC-1998; 98GB-0027016.
 AC AAB35622;
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PA (MERI) MERCK SHARP & DOHME LTD.
 DT 14-FEB-2001 (first entry)
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PI Bonnett TP;
 DE Human vanilloid receptor like receptor protein.
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PR
 KW VR-L; vanilloid receptor-like receptor; pain; infection; allergy;
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| DR N-PSDB; AAC60297.
 OS Homo sapiens.
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| DR N-PSDB; AAC60297.
 QY 301 AAKEGKIEIRHILREFSGLSHSRKFTWCYGVRSYLDLASVDSCEENSYLIAF 360
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PS
 Db 301 aakegkiefihilrefsglsksrkftewcygvrsyldasvdsceensvleiaf 360
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| XX
 QY 361 HCKSPHRHRMVTLEPLNKLQAKWDLIPREFLNLQMFITAVAHQPTKQAA 420
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PR 08-DEC-1998; 98GB-0027016.
 Db 361 hcksphrhrmvleplnkliqakwdlilipreflnqmfittavahqptkkqa 420
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| XX
 QY 421 PHLKAEVGNMSMLTGHTLILGIGVILQGOLWYFRRHVFISFTDSYBILFQALL 480
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| PS
 Db 421 phlkaevgnsmltghtlilgigvilylgqwlwyrhvfisftdsybilfqlall 480
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| XX
 QY 481 TWSQVLCFIAEWTPLVPLYSALVIGWLNLKLYTROFQHGIYSMIOKYLDRFL 540
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 481 tvwsqvlcfiaewtplvplysalvlgwllytqfqhgiysmiokylrdfl 540
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 541 IYLVLFEGFAVALVLSQEARPEAPEGPNATESQPMEGQEDGNGAQRGILRASL 600
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 Db 541 iylvlfegfaavalvlsqearpeaptgnatesqpmeggedeengayrgileaslel 600
 XX ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| CC
 QY 601 FKFTIGMELAFOEQLHFRGAVLILLLAYVLTILLNLMLTALMSETVSVATWSWI 660

XX
 KW Human; vanilloid receptor homologue; VANILREP2; polymorphic variant;
 KW PVP-1; therapy; diagnosis; chronic pain; neuropathic; postoperative;
 KW rheumatoid arthritis; neuralgia; algesia; nerve injury; ischaemia;
 KW neurodegeneration; stroke; incontinence; inflammatory disorder.
 XX
 OS Homo sapiens.
 XX
 PN WO9937765-A1.
 XX
 PD 29-JUL-1999.
 XX
 PP 25-JAN-1999; 99WO-EP00420.
 XX
 PR 20-JAN-1999; 99GB-0001209.
 PR 27-JAN-1998; 98EP-0300549.
 PR 26-OCT-1998; 98GB-0023421.
 XX
 PA (SMIK) SMITHKLINE BEECHAM PLC.
 XX
 PT Davis JB, Duckworth DM, Hayes PD;
 XX
 DR WPI: 1999-479049/40.
 DR N-PSDB; AMZ07116.
 XX
 PT New human vanilloid receptor homologues (VANILREP2)
 XX
 PS Claim 4; Page 35-37; 47PP; English.
 XX
 CC The present sequence represents a human vanilloid receptor homologue
 VANILREP2 polymorphic variant PVP-1. VANILREP2 can be used to diagnose
 CC disease or susceptibility to disease related to expression or activity
 CC of VANILREP2 polypeptides. VANILREP2 may be used to treat diseases
 CC including pain, (for example chronic, neuropathic postoperative,
 CC rheumatoid arthritis); neuralgia, algesia, nerve injury, ischaemia,
 CC neurodegeneration, stroke, incontinence, and inflammatory disorders.
 XX
 SQ Sequence 763 AA;

Query Match 99.6%; score 3988.5; DB 20; Length 763;
 Best Local Similarity 99.9%; Pred. No. 0;
 Matches 763; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 MTSSPSSPPVRLERIDGGQGDGEADRGKLDGFGCLPPMSEQFGEDRKRAPQIRVNLNY 60
 Db 1 mtspsppspvrlrlidggqgdgeadrgkldgfgclppmseqfgedrkrapqirvnly 60

QY 61 RKGTRASQPDNPREFDRDRFLNAVAVGVPEDLAGIREYLRSKTYNDSETTEGSGKTC 120
 Db 61 rkgtasqpdnprefdrdrflnavavgvpedlagireylysktyldsettegsgktc 120

QY 121 MKAVINLKDCVNACTPLIQLIDRSGNPOPLVNAQCTDDYRGISALHATEKISLQCYK 180
 Db 121 mkaivnlnkdcvnactpliqlidrsgnpoqlvnaqctddyrqisalhatekislnqcyk 180

QY 181 LLVERGANVHARACCCRFFQKGQGCFVFGELPLSLAACKQWDVSYLLENPHOBASLOA 240
 Db 181 llverganvharacccrfqkgqgcfvfgelplslactkqwdvsvylenphobasloa 240

QY 241 TDSQGNTVHALVMSDNEAINTAVTSMDGLQAGARICLPTVQLEDIRNLQDNLPLK 300
 Db 241 tdsqgntvhalvmsdneaintavtsmdglqagariplctvqledirnlqdnlplk 300

QY 301 AAKKGGKIEFRHTIQREFGGLSHRSRKFEWCVYGRVRSYLYDASVDSCEENSYLEITAF 360
 Db 301 aakeggkiefrhtriqrefgglshrsrkfeewcvygrvrsylydasvdseensyleitaf 360

QY 361 HCKSPHRHMRMVYLEPLNKLQAKUDLILKFFFLNFCNLNUYMFATAVYHQPLKKQA 420
 Db 361 hcksphrhmrmvyleplnkllqakudlilikffflnfcnluymfattayhqplkkqa 419

QY 421 PHKAEVGNMSMLTGHILLLGGIYLLVGQWYFWRHRVFTWISFIDSFEILFLFOALL 480

RESULT 7
 AAY84834
 ID AAY84834 standard; Protein; 764 AA.
 XX
 AC AAY84834;
 XX
 DT 08-AUG-2000 (first entry)
 XX
 DE Amino acid sequence of a vanilloid receptor-like (VR-L) protein.
 XX
 CA Cation channel protein; vanilloid receptor-like 1 protein; VR-L;
 KW noxious heat; pain; inflammation; tissue damage; nociception;
 KW gene therapy; sensory neuron; immune system; analgesic; immunomodulatory;
 KW neuromodulatory.
 XX
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 149
 FT /note= "Gly encoded by CAG"
 FT Region 162..193
 FT /note= "ankyrin-like repeat"
 FT Misc-difference 200
 FT /note= "Lys encoded by ATT"
 FT Region 208..240
 FT /note= "ankyrin-like repeat"
 FT Region 293..323
 FT /note= "ankyrin-like repeat"
 FT Domain 391..410
 FT /note= "transmembrane domain 1"
 FT Domain 438..453
 FT /note= "transmembrane domain 2"
 FT Domain 468..489
 FT /note= "transmembrane domain 3"
 FT Domain 501..527
 FT /note= "transmembrane domain 4"
 FT Domain 535..554
 FT /note= "transmembrane domain 5"
 FT Misc-difference 560
 FT /note= "Thr encoded by GCT"
 FT Region 587..608
 FT /note= "possible pore loop"
 FT Domain 619..645
 FT /note= "transmembrane domain 6"
 FT Misc-difference 667
 FT /note= "unspecified amino acid encoded by TNT"
 XX
 PN WO20002121-A2.

PD 20-APR-2000.
 XX
 PF 08-OCT-1999; 99WO-GB03348.
 XX
 PR 09-OCT-1998; 98GB-002124.
 XX
 PA (UNIL) UNIV COLLEGE LONDON.
 XX
 PI Garcia R, Wood JN, England S;
 XX
 DR WPI; 20000-317978/27.
 DR N-PSDB; AAA14874.

XX
 PS Claim 2; FIG 3A; 55pp; English.

CC The present sequence represents a non-selective cation channel protein, designated vanilloid receptor-like 1 (VR-1). The protein is obtained from human T lymphocytes. The VR-1 protein is activated by noxious heat, and is not capsaicin sensitive. VR-1 is expressed in sensory neurons, and is likely to play a role in mediating the pain and inflammation accompanying tissue damage (nociception). The VR-1 polynucleotide is useful for influencing the electrophysiological and/or pharmacological properties of a cell, and is also useful in the gene therapy treatment of disorders associated with sensory neurons and/or cells of the immune system and also for the preparation of a medicament for use in gene therapy. The VR-1 polynucleotides and polypeptides are useful for identifying a substance with ion-channel modulating activity (such as analgesics), or compounds which affect nociception, immunomodulatory agents, neuromodulatory agents.

XX
 Sequence 764 AA;

Query Match 98.4%; Score 3939; DB 21; Length 764;
 Best Local Similarity 98.0%; Pred. No. 0; Gaps 0;
 Matches 749; Conservative 6; Mismatches 9; Indels 0;

CC 1 MTSRSPSSPVERLETLDDQEDGBADRKLDFFGGLPPMESQPGEDKFAPOIRVNLY 60
 CC 1 mtspspsspvrfleldgggedyseadrgkldffgglppmesqfqgedkrfasqirvnly 60

CC 61 RKGPMGASOPPDNPFRDRDRFLNFAVRSRGVPEPLAGIPEVLSKTSVLTSEYTGSTGKCL 120
 CC 61 rkgtgasqpdnpfrdrdrflnfvrsrgvpedaglagipeykskyltdseytegsgtkcl 120

CC 121 MKAVALNLDGVNAQGILPLQIOPDRDSGNIQPLVWQACTDDYRGHISALHIAIEKRSQCV 180
 CC 121 mkaavlnldgvgnaqgicplqlqdsgnqpglvaqctdyrygbsahliaekrslqcv 180

CC 181 LIVENGANHARAGGRFQKGQGCFYRGEPLPLSLACTKOMDVSYLLENPROPASQA 240
 CC 181 liven ganz hara grf qkq gcf yrg epl pl slact kom dv syl len pro pas qa 240

Db 241 TDSGQNTVYLHALTMISDAENTAALVTSWMDGIGLQAGARLCPWOLEDRINQDTPKL 300
 Db 241 tdsqgntvylhalvmlsdaenatalvtsmydgllqagarcplcpqldirnlqdtpkl 300

Db 301 AAKEGKIEIFRHILQRESGSLHSURKTEWCYCPVRLYDIAVSDBCEENSVLEIAF 360
 Db 301 aakegkiefrhilqresgslhsurktewcycpvrlsydiasvaseensvleiaf 360

Qy 361 HCKSPHRMHRMVEPLNLQKWDLIPKPFENFLCNUYMFATAYHOPMLKROA 420
 Qy 361 hc ksp hr mhr mve plnl qwd l i p k p f en fl cnu y m f at ay h o p ml k roa 420

Qy 421 PHKAEVENSMUMLGHTILLGSLYLYVGOLWFMWRRIWFIWTSFIDSYFETLFLFQALL 480
 Qy 421 ph k a e v e n s m u m l g h t i l l g s l y l y v g o l w f m w r r i w f i w t s f i d s y f e t l f l f q a l l 480

Db 421 phikaevgnsmlltghlilggylivqqlwfrwrlfiwisydsyfelleflfhsll 480

XX
 RESULT 8
 XX
 ID AAY97364 standard; Protein; 630 AA.
 XX
 AC AAY97364;
 XX
 DT 14-SEP-2000 (first entry)
 XX
 DE Human VR-2 (alternate form) protein.
 XX
 KW VR-2; human; vanilloid receptor; nociceptor; pain signalling; hyperalgesia; musculoskeletal disorder; neuropathic pain;
 KW chromosome 17p11-12; gene therapy.
 XX
 OS Homo sapiens.
 XX
 PN WO200029577-A1.
 XX
 PD 25-MAY-2000.
 XX
 PF 12-NOV-1999; 99WO-US26701.
 XX
 PR 13-NOV-1998; 98US-0108322.
 PR 28-DEC-1998; 98US-0114078.
 PR 26-FEB-1999; 99US-0258633.
 PR 19-OCT-1999; 99US-0421134.
 PR (MILL-) MILLENNIUM PHARM INC.
 XX
 PI Curtis RAJ;
 XX
 DR WPI; 2000-387790/33.
 DR N-PSDB; AAA30255.

XX
 PT New capsaicin/vanilloid receptor polynucleotides and polypeptides, used to modulate pain signalling mechanisms

PS Example 1; FIG 16; 183pp; English.

CC The present sequence is the protein sequence for an alternate form of human capsaicin/vanilloid receptor VR-2, which is involved in pain signalling. The coding sequence was isolated by searching a heart cDNA library for genes encoding novel receptors of the capsaicin/vanilloid family, and has been shown to be located at chromosome 1p11-12. This region has been associated with myasthenia gravis, Smith-Magenis syndrome, CORD5, Cone-rod dystrophy, choroidal dystrophy, central areolar and retinal cone dystrophy, and it is possible that the protein may be used to treat or diagnose these disorders. In addition, the gene, protein and its antibodies can be used to diagnose and treat hyperalgesia, inflammation, infection, ischaemia, joint pain, tooth pain, headaches, pain associated with surgery or neuropathic pain,

CC possibly via the use of gene therapy.
 XX
 SQ sequence 630 AA:

Query Match 81.4%; Score 3258; DB 21; Length 630;
 Best Local Similarity 82.5%; Pred. No. 2e-301; Indels 134; Gaps 1;
 Matches 630; Conservative 0; Mismatches 0; Indels 134; Gaps 1;
 XX
 OS Rattus rattus.
 XX
 PN W0937575-A1.
 XX
 PD 29-JUL-1999.
 XX
 PR 22-JAN-1999; 99WO-US01418.
 XX
 PR 22-JAN-1998; 98US-0072151.
 XX
 (REGC) UNITV CALIFORNIA.
 PT Brake AJ, Catrina M, Julius DJ;
 XX
 DR WPI: 1999-469113/39.
 XX
 N-PSDB; AX87478.
 XX
 PT New isolated capsaicin receptor polypeptide and related nucleic acid
 - useful for detecting vanilloid compounds, identifying modulators,
 and in diagnosis or treatment of e.g. pain and inflammation
 XX
 PS Claim 4; Page 81-83; 120pp; English.
 XX
 CC The present sequence represents rat vanilloid receptor-related
 polypeptide 1 (VRP-1 or VR2), as deduced from a cDNA clone (see
 ANX8478) isolated from a rat brain cDNA library. VRP-1 is an
 example of a capsaicin receptor-related polypeptide of the
 CC invention. It is not activated by capsaicin or heat, but may
 interact with the novel capsaicin receptor VR1 (see AN06555). It
 shows 49% identity with rat VR1. The invention provides vanilloid
 CC receptor polypeptides and polynucleotides, including capsaicin
 CC receptor-related polypeptides and polynucleotides, as well as
 CC expression vectors, host cells and transgenic animals. It also
 provides a method of using such receptors to identify vanilloid
 CC compounds in natural products or to screen candidate compounds that
 modulate capsaicin receptor function for use as analgesics (vanilloid
 CC analogues, therapeutic antibodies, antisense oligonucleotides,
 CC capsaicin receptor-encoding polynucleotides; for gene therapy,
 CC flavour-enhancing agents, etc. Capsaicin receptor-related
 CC polypeptides and specific antibodies can also be used for the
 CC diagnosis and treatment of human disease and pain.
 XX
 SQ Sequence 761 AA;

Query Match 76.2%; Score 3051.5; DB 20; Length 761;
 Best Local Similarity 77.7%; Pred. No. 1.3e-281;
 Matches 598; Conservative 62; Mismatches 93; Indels 17; Gaps 7;
 XX
 PN 530 ----- 529
 XX
 PR 661 KLOKAIISVLEMENGWWCRKKRQAGSYMGTTPKPGSPDERWCFCRVEEVWASWQQLPT 720
 XX
 PR 530 --kaisvlemengwwcrkkraqagymgttppkpgspderwcfcvveevwawqqlpt 586
 XX
 PR 721 LCEDDSGAGYPRTLNPVLAASPDKDGEASEENTVPOQIQLSN 764
 XX
 PR 587 Icedsgagprtlipviasppkededgaseenypvqqlqn 630
 XX
 PR RESULT 9
 XX
 ID AAY06556 standard; Protein; 761 AA.
 XX
 AC AAY06556;
 XX
 DT 08-OCT-1999 (first entry)
 DE Rat vanilloid receptor-related polypeptide 1 (VRP-1).
 XX
 KW Vanilloid receptor-related polypeptide 1; VRP-1; VR2;

KW capsaicin receptor; VR1; rat; vanilloid; analgesic; pain;
 KW inflammation; therapy; diagnosis.
 XX
 OS Rattus rattus.
 XX
 PN W0937575-A1.
 KW
 PD 29-JUL-1999.
 KW
 PR 22-JAN-1999; 99WO-US01418.
 KW
 PR 22-JAN-1998; 98US-0072151.
 KW
 (REGC) UNITV CALIFORNIA.
 PT Brake AJ, Catrina M, Julius DJ;
 KW
 DR WPI: 1999-469113/39.
 KW
 N-PSDB; AX87478.
 KW
 PT New isolated capsaicin receptor polypeptide and related nucleic acid
 - useful for detecting vanilloid compounds, identifying modulators,
 and in diagnosis or treatment of e.g. pain and inflammation
 KW
 PS Claim 4; Page 81-83; 120pp; English.
 KW
 CC The present sequence represents rat vanilloid receptor-related
 polypeptide 1 (VRP-1 or VR2), as deduced from a cDNA clone (see
 ANX8478) isolated from a rat brain cDNA library. VRP-1 is an
 example of a capsaicin receptor-related polypeptide of the
 CC invention. It is not activated by capsaicin or heat, but may
 interact with the novel capsaicin receptor VR1 (see AN06555). It
 shows 49% identity with rat VR1. The invention provides vanilloid
 CC receptor polypeptides and polynucleotides, including capsaicin
 CC receptor-related polypeptides and polynucleotides, as well as
 CC expression vectors, host cells and transgenic animals. It also
 provides a method of using such receptors to identify vanilloid
 CC compounds in natural products or to screen candidate compounds that
 modulate capsaicin receptor function for use as analgesics (vanilloid
 CC analogues, therapeutic antibodies, antisense oligonucleotides,
 CC capsaicin receptor-encoding polynucleotides; for gene therapy,
 CC flavour-enhancing agents, etc. Capsaicin receptor-related
 CC polypeptides and specific antibodies can also be used for the
 CC diagnosis and treatment of human disease and pain.

Query Match 76.2%; Score 3051.5; DB 20; Length 761;
 Best Local Similarity 77.7%; Pred. No. 1.3e-281;
 Matches 598; Conservative 62; Mismatches 93; Indels 17; Gaps 7;
 XX
 PR 1 MTSPPSPVPLERETDGGQEDGSEADRKGKIDFGSLPPMESQFEDRKFAPOIRVNLN 60
 XX
 PR 1 mtsassppafirletsodgdeengaevnkgqke---pppmesppfgrdrnssppqkvlnif 56
 XX
 PR 61 ---RKGTA-SQDPNRFRDRLENAVRSGVWPEPLAGIPEYLSKTSKLTSEYEST 115
 XX
 PR 57 ikrpkntsasppqpeparfarifsvsrgpeeltgileytwnskyltdsayegst 116
 XX
 PR 116 GKTCLAKVNLKDVNACTPLQIDRSGNPQLVNACTDDYRGHSALHAIKEKS 175
 XX
 PR 117 qktcinkavnlqdgynacimplqdkgnpkvlnaqctdefyqghsahlaikrs 176
 XX
 PR 176 LQCVKLVLENGWANHARACGRFFQKGQGCFYFGBPLSLAECTKQWDVSYLLENPHQ 235
 XX
 PR 177 1qcvklvengadvhrlacgrffqkgqcfyfgeplislaactkqwdvvtlylenphq 236
 XX
 PR 236 ASLQATDSQANTVHALVMSDNSAENIALVTSMDGLQAGARLCPVQLEDRNLQD 295
 XX
 PR 237 asleatdsqntvhalvniadspnsalvihydg1lqmgarcptvqleelshqg 296
 XX
 PR 296 TPLKLAKEGKIEFRHILQREFSG-LSHLSRKPEWCYGPVRLSYLDSLVDSCENS 354

Db	297	tpikaakegkiefhliqrefsgpyplsriftewygpyrsvlylswsdswevns	356
CC	CC	polypeptides and host cells are useful for detecting a vanilloid compound, an essential structural component of capsaicin, from natural products by detecting an alteration of intracellular response associated with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
QY	355	LETFIAFKCSPHRHMVYLEPLNKLQAKWDLIIPKEFLNFCNLIVMFITAVAYHPT	414
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
Db	357	leiafchkspnhrmvyleplnklikewkdrvlsvrffinfacylvymififtvayhps	416
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
QY	415	LKKQAPHKAEVGNSMLTGHILLLGGIYLNGQLYFWRRHVFIMISFDSYELF	474
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
Db	477	lqgallytivsqvirfmetewyplivisvalgmllytrgqhtgjysvmlqkvlrd	536
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
QY	535	LIRPLILIVFLGFAVALVLSQEAWRPEAPCPNATESVQPMEGQDEGNGAQYRGL	594
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
Db	537	lirflivlylifqfavalvlsrearspkapednnstvteqptvggee--papyrsll	594
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
QY	595	EASLELFKFTIGMEELAQEQLHFRGMWLLLLAYVLITYILLNLMLMSETVNSAT	654
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
QY	655	DSNSIWKIQLQASVLEMENGYWMC-RKKORAGYMLTWGKPCSPDERWCFCRVEEVNNS	713
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
Db	655	newsiwiqliqkaisllemengywcrkrkkhregliktrgqhtgjysvmlqkvlrd	714
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
QY	714	WEQTILPTCEDPSGAGVPTLENPLASPPKEDGASEENVYVQULQS	763
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
Db	715	wektlptisedpsggpitgknkpt---skpgknaseedhplqvlqs	760
CC	CC	products with capsaicin receptor activity, preferably an alteration of intracellular calcium levels, and are useful for screening for compounds for use in analgesics. Capsaicin receptor polypeptides and antibodies are useful for diagnosis and treatment of human diseases and painful syndromes. The transgenic mammals can be used to screen for capsaicin receptor antagonists and agonists. Prior art methods for screening or characterising new capsaicin receptor-binding compounds relied on assays using sensory neurons in culture or in intact animals. The new polypeptides provide a more sensitive screen.	CC
RESULT	10		
AAM9790			
ID	AAM9790 standard; Protein: 761 AA.		
XX			
AC	AAM9790;		
XX			
DE	16-JUN-1999 (first entry)		
XX			
Rat	VRRP-1 (VR2) capsaicin receptor.		
XX			
KW	capsaicin receptor; VR2; VRRP-1; analgesic; diagnosis; human disease; painful syndrome.		
KW			
Rattus	rattus:		
OS			
XX			
PN	W0909140-A1.		
XX			
PD	25-FEB-1999.		
XX			
PF	20-AUG-1998; 98WO-US17466.		
XX			
PR	22-JAN-1998; 98US-0072151.		
PR	20-AUG-1997; 97US-0015461.		
XX			
PA	(REGCC) UNIV CALIFORNIA.		
XX			
PI	Brake A, Caterina M, Julius DJ;		
XX			
DR	WPI; 1999-181023/15.		
DR	N-PSDB; AAX19730.		
XX			
PT	New capsaicin receptor polypeptide - useful for screening or characterising capsaicin receptor-binding compounds		
PT	Claim 4; Page 78-79; 99pp; English.		
XX			
CC	The present sequence is an isolated capsaicin receptor polypeptide (1). Capsaicin polypeptides are useful for identifying binding compounds which affect cellular responses. Preferably this is for identifying a compound that binds (1) and affects a cellular response associated with capsaicin biological activity (e.g. intracellular calcium flux). The		
CC			

RESULT 11
 AAY0560
 ID AAY0560 standard; Protein; 727 AA.
 XX
 AC AAY0560;
 XX
 DR 08-OCT-1999 (first entry)
 DE Human vanilloid receptor-related polypeptide 1 (VRRP-1).
 KW Vanilloid receptor-related polypeptide 1; VRRP-1; VR2;
 KW capsaicin receptor; VRL; human; vanilloid; analgesic; pain;
 KW inflammation; therapy; diagnosis.
 OS Homo sapiens.
 XX
 FH Key Location/Qualifiers
 FT Misc-difference 194..208 /note= "unidentified residues"
 FT Misc-difference 308 /note= "unidentified residue"
 FT Misc-difference 311 /note= "unidentified residue"
 FT Misc-difference 343..368 /note= "unidentified residues"
 FT Misc-difference 404 /note= "unidentified residue"
 FT Misc-difference 460..474 /note= "unidentified residues"
 FT Misc-difference 558 /note= "unidentified residue"
 FT Misc-difference 608 /note= "unidentified residue"
 XX WO9937675-A1.
 XX 29-JUL-1999.
 XX 22-JAN-1999; 99WO-US01418.
 PR 22-JAN-1998; 98US-0072151.
 XX (REGC) UNIV CALIFORNIA.
 PA Brake AJ, Caterina M, Julius DJ;
 DR XX
 DR WPI; 1999-469113/39.
 XX
 PT New isolated capsaicin receptor polypeptide and related nucleic acid
 PT - useful for detecting vanilloid compounds, identifying modulators,
 PT and in diagnosis or treatment of e.g. pain and inflammation
 XX
 PS Claim 4; Page 91-93; 120pp; English.
 XX
 CC The present, claimed sequence represents a human vanilloid receptor-
 CC related polypeptide 1 (VRRP-1 or VR2) sequence predicted from
 CC available EST sequences (see AAX97499-501). VRRP-1 (see also AAY06559)
 CC is an example of a capsaicin receptor-related polypeptide of the
 CC invention. It is not activated by capsaicin or heat, but may
 CC interact with the novel capsaicin receptor VRL (see AAY06559). The
 CC invention provides capsaicin receptor and capsaicin receptor-
 CC related polypeptides and polynucleotides, as well as expression
 CC vectors, host cells and transgenic animals. It also provides a
 CC method of using such receptors to identify vanilloid compounds in
 CC natural products or to screen candidate compounds that modulate
 CC capsaicin receptor function for use as analgesics (vanilloid
 CC analogues, therapeutic antibiotics, antiseNSE oligonucleotides,
 CC capsaicin receptor-encoding polynucleotides for gene therapy),
 CC flavour enhancing agents, etc. Capsaicin receptor-related
 CC polypeptides and specific antibodies can also be used for the
 CC diagnosis and treatment of human disease and pain.
 XX
 SQ Sequence 727 AA;

Query Match 75.8%; Score 3036.5; DB 20; Length 727;
 Best Local Similarity 79.1%; Pred. No. 3.1e-280; Matches 620; Conservative 5; Mismatches 82; Indels 77; Gaps 10; Matches 620; Conservative 5; Mismatches 82; Indels 77; Gaps 10;

QY 1 MTSPPSSPPVRLTELTDGGQEDGSEADRKGKIDFGSGLPPMSSFOCEDRKPAPQTRVNLW 60
 DB 1 mtsppspvrlteltdggqedgseadrkgkifgsglppmssfoedrkpapqtrvnlw 60
 QY 61 RKGTTGASQDPDNFRDRDRFLRNNAVSRGVPEDLAGTPEYLSTSRTSKYLIDSENTEGSTGKTL 120
 DB 61 rkgtgasqdpdnfrdrdrflrnnavsrgvpedagtpelystsrtskylidsentegstgktl 120
 QY 121 MKAVINLKDQEWNACTPLQIDRSGNPOPLVNAQCTDYYRGISALHIAEKRSLOCYR 180
 DB 121 mkaavinlkdkgnvacnacipilqdrdsqgnpplnaqctdyyrgisalhiaekrslocy 180
 QY 181 LIVENGANYHARACGRFFQKGQGTCFYGELPLSLACTKQDWVSYLLENPHRASPLOA 240
 DB 181 livenGANhAraxxxxxxxGelplslactkqdwvsyslennphasploa 240
 QY 241 TDSQGNTVILHALVMTSDNARAEIAVTSMDGLQAGARICPTVQLEDTRNLQDPLKL 300
 DB 241 tdsqgntvihalvmsnaenialvtsgndglqagariacptvqledtrnlqdlptkl 300
 QY 301 AKEGKIEIR-RHII-ORESGLS-HLSRKTE-WCYGPRVRSYLDASVDSCEENSVLE 356
 DB 301 akegkixifxrhilaskgkisgkpprkrftewlmqpvrvxxxxxxxxxxxxxxxxxx 360
 QY 357 1IAFICKSPHRMVTLEPINKLQAKWDLIPREFLNLNLYMEIFTAVVHQPTK 416
 DB 361 xxxxxxxxpxpoinhrmwleplinklqakwdllipkflnflnlxymfiftavayhqptk 420
 QY 417 KQAPPHLKAEGVNSMLTGHLILIGGIWVQWQIWFRR-----RHF 460
 DB 421 kqaaphlkaegvnsmltghliliggiwvqkwfwxxxxxxxxxxxxxfgkh----- 478
 QY 461 IWSIFDSYFEILFLFQALLLNVVNSOVLCFIALEWYLPLLVSVLWIGWLNLYYTRGFQHT 520
 DB 479 -----rwpapacra--gagiaeapallytwl----pahrl 509
 QY 521 GIYSVMIQKVLIRDLFLYLVLFLGRAWALVLSQERWRPAPTGNTATEVQPMG 580
 DB 510 qchd-----pealvlsqd-wrpeaptgpnatesvqpmeg 543
 QY 581 QDEDEGNGAQYRGIGLEASLELFKFTIGMELAFQOLHFRGMWLLAVLTYILLM 640
 DB 544 qdedegngaqyrgiqlixaslelfkftigmelafqeqlhfrgmwllavlyillm 603
 QY 641 DIALMSETVNSVATDSWSIWKLQKRAISVLEMENGWWCRKKRQAGVMLTVGKPDGSPE 700
 DB 604 1iaxsetvnsvatdswsiklqkaisvle menywwcrkkraqgmltvgtkpdspe 663
 QY 701 RKCFCRVEEVWNAWSWQTLPMICEDPSGAGVPRTEBNPVIASPPKEDDASEENVPVOL 760
 DB 664 rkcfcrveevwawswqeqtpticedpsgagvprtebnpviasppkdedgasseenyvpvql 723
 QY 761 LDQN 764
 DB 724 1qsn 727

RESULT 12
 AAW99798
 ID AAW99798 standard; Protein; 727 AA.
 XX
 AC AAW99798;
 XX
 DR 16-JUN-1999 (first entry)
 XX
 DE Human VRRP-1 (VR2) capsaicin receptor.

The present sequence is the partial sequence for an alternate form of human capsaicin/vanilloid receptor VR-2, which is involved in pain perception.

capsaicin-vanilloid receptor, type 1 (TRPV1), gene, encoding novel vanilloid receptor, type 1, located at chromosome 17p11-12. This region has been associated with myasthenia gravis, Smith-Magenis syndrome, CORD5, cone rod dystrophy, choroidal dystrophy, central areolar and retinal cone dystrophy, and it is possible that the protein may be used to treat or diagnose these disorders. In addition, the gene, protein and its antibodies can be used to diagnose and treat hyperalgesia, inflammation, infection, ischaemia, joint pain, tooth pain, headaches, pain associated with surgery or neuropathic pain, possibly via the use of gene therapy.

Sequence	436 AA:	PR XX	XX	19-OCT-1999; 99US-0421134.
Query Match	55.9%; Score 2240; DB 21; Length 436;	Best Local Similarity	76.5%; Pred. No. 1; e-204; Mismatches 0; Indels 134; Gaps 436; Conservative	Matches 436; Predicted by: PA
QY	195 GRFFQKSGOTCFVFGELPLSLA T KQWDVSYLENPHQASLOADSGQNTVHALVM 254	WPI: 2000-387790/33.	XX	PI (MILL-) MILLENNIUM PHARM INC.
Db	1 grifqkaggctcfyfgelplslactkqwdvsvylenphqasloadsgqntvhalv 60	DR: N-PSDB; AA: 30256.	XX	XX
QY	255 ISD A ENALTVMSYDGLQAGARL C PTVQLED I RNIQDPLKLAKE G KTEFRHIL 314	PT: New capsaicin/vanilloid receptor polynucleotides and polypeptides, used to modulate pain signalling mechanisms	XX	XX
Db	61 isd <a>nsaen altvmsydg <i>l</i> qggarl <i>c</i> ptvqled <i>i</i> rn <i>q</i> dpl <i>k</i> l <i>a</i> ke <i>g</i> ke <i>f</i> hil 120	PS: Claim 11; Fig 4; 183PP; English.	XX	XX
QY	315 OREFSGL S HLRSK R FTEW C GYGPYRV V SL D ASV S CEENS V LET A IF H CKSPHRM V LE 374	CC: The present sequence is the protein sequence for the rat capsaicin/vanilloid receptor VR-2, which is involved in pain signalling. The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	121 qrefsglshlsrkftewcgygpvrsldas <i>s</i> ceens <i>v</i> let <i>a</i> if <i>h</i> cksp <i>hr</i> mv <i>l</i> 180	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
QY	375 PANKL L OKWD L IPK P FL N FL C NY M IFT A AV V YOPT T Q A PH L K A EG G N M ILT 434	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	181 pinklqakwdl <i>l</i> ipk <i>f</i> ln <i>f</i> nc <i>l</i> ny <i>f</i> ift <i>v</i> av <i>h</i> q <i>o</i> pt <i>k</i> q <i>a</i> ph <i>h</i> kv <i>g</i> ns <i>ml</i> 240	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
QY	435 GH T IL L AG G Y I LY G OL W Y F WR R H V W I S F DS Y FE L FL Q AL L W S Q C FL A TEW 494	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	241 gh <i>h</i> il <i>l</i> g <i>g</i> iy <i>l</i> vg <i>q</i> iw <i>y</i> fr <i>w</i> tr <i>h</i> fv <i>w</i> is <i>f</i> ds <i>y</i> fe <i>l</i> fl <i>q</i> al <i>l</i> tv <i>s</i> q <i>v</i> ic <i>f</i> lia <i>w</i> 300	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
QY	495 YUP L VS A VL G HL N LL Y TR F Q H GT I YS M IQ V K V I R DL L R F LL I Y V LF G FA A VAL V 554	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	301 y <i>l</i> p <i>l</i> vs <i>a</i> lv <i>g</i> ln <i>l</i> yy <i>tr</i> fg <i>q</i> ht <i>y</i> sv <i>m</i> l <i>q</i> k <i>-----</i> 335	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
QY	555 S L S Q E A W R P E A P T G P N A T E S V O P M E G Q E D E G N A Q Y R G I L E A S L E F R K T G M E L A F Q E 614	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	336 ----- 335	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
QY	615 Q L H F R G M V L L L A V L L T Y T L N M L T A M S E T V N S W I M 674	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	336 ----- 335	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
QY	675 Y W M C R K I R Q A G I M L T V G T K D SP D ER W C F R E V N W A S E Q T L P T C E D SG A G P T L 734	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	347 y <i>w</i> crk <i>k</i> q <i>g</i> rag <i>m</i> lt <i>v</i> tg <i>k</i> pd <i>s</i> pt <i>e</i> w <i>c</i> f <i>v</i> ee <i>v</i> h <i>w</i> as <i>w</i> ed <i>l</i> pt <i>c</i> ed <i>p</i> sg <i>g</i> av <i>p</i> rt <i>l</i> 406	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
QY	735 EN V LA S P P K E D D G A S E BN Y Y V Q L Q S N 764	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
Db	407 e <i>p</i> yl <i>as</i> pp <i>k</i> ed <i>g</i> as <i>e</i> en <i>y</i> fv <i>q</i> l <i>g</i> sn 436	CC: The coding sequence was isolated by searching a dorsal root ganglion library for genes encoding novel receptors of the capsaicin/vanilloid family. The human version of this gene is found at chromosome 17p11.12. a	CC	CC
RESULT	14	Query Match	55.7%; Score 2230; DB 21; Length 554;	
AY97360	AY97360 standard; Protein: 554 AA.	Best Local Similarity	79.0%; Pred. No. 1; e-203; Mismatches 66; Indels 8; Gaps 4; Matches 437; Conservative	
ID	AY97360;	WPI: 2000-387790/33.	XX	
XX	XX	DR: N-PSDB; AA: 30256.	XX	
DE	DE	PT: New capsaicin/vanilloid receptor polynucleotides and polypeptides, used to modulate pain signalling mechanisms	XX	
XX	XX	PS: Claim 11; Fig 4; 183PP; English.	XX	
VR-2; rat; vanilloid receptor; nociceptor; Pain signalling; Rat partial VR-2 protein.				

RESULT 15
 AAY06561
 ID AAY06561 standard; Protein; 843 AA.
 XX
 AC AAY06561;
 XX
 DT 08-OCT-1999 (first entry)
 XX
 DE Chicken capsaicin receptor subtype VR1.
 XX
 KW Capsaicin receptor; VR1; vanilloid-like receptor 1; analgesic;
 KW pain; inflammation; therapy; diagnosis; chicken.
 OS Gallus sp.
 XX
 PN WO9937675-A1.
 XX
 PD 29-JUL-1999.
 XX
 PF 22-JAN-1999; 99WO-US01418.
 XX
 PR 22-JAN-1998; 98US-0072151.
 XX
 PA (REGC) UNIV CALIFORNIA.
 XX
 PI Brake AJ, Caterina M, Julius DJ;
 XX
 DR WPI; 1999-469113/39.
 DR N-PSDB; AAX87503.
 XX
 PT New isolated capsaicin receptor polypeptide and related nucleic acid
 PT - useful for detecting vanilloid compounds, identifying modulators,
 PT and in diagnosis or treatment of e.g. pain and inflammation
 XX
 PS Claim 4; Page 97-99; 120PP; English.
 XX
 CC The present sequence represents chicken capsaicin receptor subtype
 CC VRI (vanilloid-like receptor 1). The invention provides capsaicin
 CC receptor and capsaicin receptor-related polypeptides and
 CC polynucleotides, as well as expression vectors, host cells and
 CC transgenic animals. It also provides a method of using such
 CC polypeptides to identify vanilloid compounds in natural products or
 CC to screen candidate compounds that modulate capsaicin receptor
 CC function for use as analgesics (vanilloid analogues, therapeutic
 CC antibodies, antisense oligonucleotides, capsaicin receptor-encoding
 CC polynucleotides for gene therapy), flavour enhancing agents, etc.
 CC Capsaicin receptor polypeptides and specific antibodies can also be
 CC used for the diagnosis and treatment of human disease and pain.
 Sequence 843 AA;
 SQ

Search completed: July 18, 2001, 15:58:43
Job time: 302 sec

The present sequence represents chicken capsaicin receptor subtype VRL (vanilloid-like receptor 1). The invention provides capsaicin receptor and capsaicin receptor-related polypeptides and polynucleotides, as well as expression vectors, host cells and transgenic animals. It also provides a method of using such polypeptides to identify vanilloid compounds in natural products or to screen candidate compounds that modulate capsaicin receptor function for use as analgesics (vanilloid analogues, therapeutic antibodies, antisense oligonucleotides, capsaicin receptor-encoding polynucleotides for gene therapy), flavour-enhancing agents, etc. Capsaicin receptor polypeptides and specific antibodies can also be used for the diagnosis and treatment of human disease and pain.

Query Match	42.28	Score 1689; DB 20;	Length 843;
Best Local Similarity	47.28	pred. No. 9.8e-152	
Matches 358; Conservative	118	Matches 218; Tndals 64.	Cans

Mon Jul 23 12:04:37 2001

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